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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,807	01/12/2004	George Gerpheide	0668.CIRQ.DV2	1522

26986 7590 10/09/2007

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EXAMINER	
LEWIS, DAVID LEE	

ART UNIT	PAPER NUMBER
2629	

MAIL DATE	DELIVERY MODE
10/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/756,807	Applicant(s) GERPHEIDE ET AL.	
	Examiner David L. Lewis	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *43-62* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *43-62* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *10/25/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claim 43 rejected under 35 U.S.C. 102(a) as being anticipated by Chan et al. (5880717).**

As in claim 43, Chan et al. teaches of a method for providing adaptable precision of a
capacitance sensitive touchpad, **column 4 lines 20-67,**

said method comprising the steps of:
(i) determining a speed of an object moving on a touchpad surface, **column 4 lines 40-50**;

(2) determining if the speed of the object is above or below a speed threshold, **column 4 lines 40-50, column 11 lines 13-19**;

(3) increasing precision of the touchpad when the speed of the object is determined to be below the speed threshold, **column 4 lines 40-68, column 8 lines 65-68, column 9 lines 1-2**;

and (4) decreasing precision of the touchpad when the speed of the object is determined to be above the speed threshold, **column 4 lines 40-68, column 8 lines 65-68, column 9 lines 1-2**.

Wherein the precision is increased and decreased based on applied constraint speed that modify the speed of the cursor moving upon the display screen.

2. **Claim 43-62 rejected under 35 U.S.C. 102(e) as being anticipated by Westerman et al. (6323846).**

As in claim 43, Westerman et al. teaches of a method for providing adaptable precision of a capacitance sensitive touchpad, **figure 1**,

said method comprising the steps of:
(i) determining a speed of an object moving on a touchpad surface, **column 13 lines 48-60, column 42 lines 29-36, figure 1 item 16**;

(2) determining if the speed of the object is above or below a speed threshold, **column 48 lines 25-38**;

(3) increasing precision of the touchpad when the speed of the object is determined to be below the speed threshold, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**;

and (4) decreasing precision of the touchpad when the speed of the object is determined to be above the speed threshold, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**.

Wherein a dead zone filter produces zero output velocity for input velocities less than a speed threshold but produces output speeds in proportion to the

difference between the input speed and the threshold for input velocity that exceed the threshold. Further wherein the decision to continue motion depends on a percentage of acceleration. The continue motion mode requires less precision and less updates. If deceleration occurs increased precision is required because movement continues to be monitored and it is not automated to continue until the next event occurs.

As in claim 51, Westerman et al. teaches of method for providing adaptable precision

of a capacitance sensitive touchpad, **figure 1,**

said method comprising the steps of:

(i) determining a rate of acceleration or deceleration of an object moving on a touchpad surface, **column 13 lines 48-60, column 42 lines 29-36, figure 1 item 16**;

(2) determining if the rate of acceleration or deceleration is above or below an acceleration or deceleration threshold, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**;

(3) increasing precision of the touchpad when the rate of acceleration or deceleration is determined to be below the acceleration or deceleration threshold, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**;

and (4) decreasing precision of the touchpad when the speed of the object is determined to be above the acceleration or deceleration threshold, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.**

Wherein a dead zone filter produces zero output velocity for input velocities less than a speed threshold but produces output speeds in proportion to the difference between the input speed and the threshold for input velocity that exceed the threshold. Further wherein the decision to continue motion depends on a percentage of acceleration. The continue motion mode requires less precision and less updates. If deceleration occurs increased precision is required because movement continues to be monitored and it is not automated to continue until the next event occurs.

As in claim 59, Westerman et al. teaches of method for providing adaptable precision of a capacitance sensitive touchpad, **figure 1**,

said method comprising the steps of (i) monitoring at least one aspect of an object moving on a touchpad surface, **column 13 lines 48-60, column 42 lines 29-36, figure 1 item 16**;

(2) determining if the at least one aspect of the object has reached a state wherein the precision of the capacitance sensitive touchpad should be modified, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**;

(3) increasing precision of the touchpad when the at least one aspect of the object is determined to be within a first state, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**;

and (4) decreasing precision of the touchpad when the at least one aspect of the object is determined to be within a second state, **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.**

Wherein a dead zone filter produces zero output velocity for input velocities less than a speed threshold but produces output speeds in proportion to the difference between the input speed and the threshold for input velocity that exceed the threshold. Further wherein the decision to continue motion depends on a percentage of acceleration. The continue motion mode requires less precision and less updates. If deceleration occurs increased precision is required because movement continues to be monitored and it is not automated to continue until the next event occurs.

As in claim 61, Westerman et al. teaches of method for balancing accuracy of object position determination on a touchpad and rate of updates
to a display device of the object position, **figure 1**,

said method comprising the steps of: (i) determining if accuracy of object position is more critical to touchpad performance than rate of updates to a display device, **column 13 lines 48-60, column 42 lines 29-36, figure 1 item 16,**

(2) optimizing touchpad performance to provide more accurate position determination information when that aspect of touchpad performance is more important than rate of display; **column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38**

and (3) optimizing touchpad performance to provide an increased rate of updates of position information to a display device when that aspect of touchpad performance is more important that accuracy of position information,.**column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.**

Wherein a dead zone filter produces zero output velocity for input velocities less than a speed threshold but produces output speeds in proportion to the

difference between the input speed and the threshold for input velocity that exceed the threshold. Further wherein the decision to continue motion depends on a percentage of acceleration. The continue motion mode requires less precision and less updates. If deceleration occurs increased precision is required because movement continues to be monitored and it is not automated to continue until the next event occurs.

As in claim 44, Westerman et al. teaches of wherein the method further comprises the step of determining if the speed of the object is above or below the speed threshold by obtaining an instantaneous speed of the object, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 45, Westerman et al. teaches of wherein the step of increasing or decreasing precision of the touchpad further comprises the step of using an adaptive motion filter to modify performance of the touchpad, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38..

As in claim 46, Westerman et al. teaches of wherein the step of using an adaptive motion filter to increase precision further comprises the step of increasing a rate of determining a position of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38, step 512.

As in claim 47, Westerman et al. teaches of wherein the method further comprises the step of decreasing position updates transmitted to a display

device, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38..

As in claim 48, Westerman et al. teaches of wherein the step of using an adaptive motion filter to decrease precision further comprises the step of decreasing a rate of determining a position of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38, step 512.

As in claim 48, Westerman et al. teaches of wherein the step of decreasing precision further comprises the step of providing more rapid updates of the object position to a display device, wherein the display device receives position information regarding the object at an increased rate, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 50, Westerman et al. teaches of wherein the steps of increasing and decreasing precision of the touchpad further comprises the step of providing a plurality of different levels of precision for the touchpad, wherein the plurality of different levels of precision correspond to a plurality of different speeds of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 52, Westerman et al. teaches of wherein the method further comprises the step of determining if the rate of acceleration or deceleration of the object is above or below the acceleration or deceleration threshold by obtaining at least two instantaneous speeds measurements of the object, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38..

As in claim 53, Westerman et al. teaches of wherein the step of increasing or decreasing precision of the touchpad further comprises the step of using an adaptive motion filter to modify performance of the touchpad, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38..

As in claim 54, Westerman et al. teaches of wherein the step of using an adaptive motion filter to increase precision further comprises the step of increasing a rate of determining a position of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38..

As in claim 55, Westerman et al. teaches of wherein the method further comprises the step of decreasing position updates transmitted to a display device, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 56, Westerman et al. teaches of wherein the step of using an adaptive motion filter to decrease precision further comprises the step of decreasing a rate of determining a position of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 57, Westerman et al. teaches of wherein the step of decreasing precision further comprises the step of providing more rapid updates of the object position to a display device, wherein the display device receives position information regarding the object at an increased rate, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 58, Westerman et al. teaches of wherein the steps of increasing and decreasing precision of the touchpad further comprises the step of providing a plurality of different levels of precision for the touchpad, wherein the plurality of different levels of precision correspond to a plurality of different rates of acceleration or deceleration of the object on the touchpad surface, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 60, Westerman et al. teaches of wherein the method further comprises the step of selecting the at least one aspect of the object moving on the touchpad surface from the group o aspects comprising speed and acceleration, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

As in claim 62, Westerman et al. teaches of wherein the method further comprises the step of using speed or acceleration of an object moving across the touchpad surface as the criteria for determining which aspect of touchpad performance will be optimized, figure 1 item 16, column 44 lines 20-68, column 45 lines 30-68, column 46 lines 1-36, column 48 lines 25-38.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(571) 272-7673**. The examiner can normally be reached on MTWTHF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on **(571) 272-7681**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571)-273-8300.

4. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Examiner: David L. Lewis
September 30, 2007